

**ARIZONA GAME AND FISH DEPARTMENT  
HERITAGE DATA MANAGEMENT SYSTEM**

**Plant Abstract**

**Element Code:** PDPGN081K0

**Data Sensitivity:** No

**CLASSIFICATION, NOMENCLATURE, DESCRIPTION, RANGE**

**NAME:** *Eriogonum darrovii*

**COMMON NAME:** Darrow's Buckwheat, Darrow's wild buckwheat, Carrot Buckwheat

**SYNONYMS:**

**FAMILY:** Polygonaceae

**AUTHOR, PLACE OF PUBLICATION:** R.H. Kearney, Leaflets of Western Botany 4(2): 267-268. 1946.

**TYPE LOCALITY:** 5 mi. W. of Ryan, Kaibab Nat. Forest, NW Coconino County, Arizona, United States of America.

**TYPE SPECIMEN:** HT: CAS-329031. Robert Darrow 2998, 31 August 1945.

**TAXONOMIC UNIQUENESS:** There are about 225 species in this genus, mainly in western North America. Kearney and Peebles (1951), reports 57 species of *Eriogonum* in Arizona, while Lehr (1978) reports 65 species of *Eriogonum* in Arizona.

**DESCRIPTION:** Herbaceous annual with a compact appearance due to the numerous leaves and flowers, and shortness of internodes, the longest being 1.5 cm (0.6 in.) long. Leaves diminish gradually upward, but even the uppermost are well developed and not bract-like; leaf and branchlet nodes are subtended by three thin, not rigid, triangular bracts. Leaf blades are obtuse, 6-12 mm long and 5-10 mm wide, apiculate at the apex, and cuneate or attenuate at the base. The flowers are pale yellow to pinkish, 1.5-2.0 mm long. "Tepals strongly dimorphic, those of the outer whorl fan-shaped and hooded, those of the inner whorl lanceolate and erect, usually longer than the tepals of the outer whorl" (Reveal, 1976). The brown achene's are 1 mm long.

**AIDS TO IDENTIFICATION:** This plant is unique among annual species of *Eriogonum*. It can easily be distinguished by being leafy throughout and sericeous (Reveal 1976). The shortness of the internodes and relatively large number of leaves in relation to the plant's size, give this species compactness unlike other species in the genus (Fletcher 1979).

**ILLUSTRATIONS:** Photo of herbarium specimens (*In* AGFD/HDMS files)

Color photo of Isotype collection (Darrow *in*

[http://scisun.nybg.org:8890/searchdb/owa/wwwcatalog.detail\\_list?this\\_id=2981102](http://scisun.nybg.org:8890/searchdb/owa/wwwcatalog.detail_list?this_id=2981102))

**TOTAL RANGE:** Ranges from White Pine County, Nevada; Mohave and Coconino counties in Arizona, north of the Grand Canyon; and Kane County, Utah.

**RANGE WITHIN ARIZONA:** Known distribution includes approximately five disjunctive locations in northern Coconino and Mohave counties, north of the Grand Canyon.

### **SPECIES BIOLOGY AND POPULATION TRENDS**

**GROWTH FORM:** Herbaceous annual.

**PHENOLOGY:** May - September (?).

**BIOLOGY:** This species apparently does not compete well with other annual forbs and grasses, and was observed to have its greatest size and density on disturbed soils (Gierisch *in* Fletcher 1979).

**HABITAT:** Limestone outcrops and limestone derived soils usually in Great Basin Conifer Woodland (juniper/pinyon woodland) communities. Often found on disturbed soils. (Fletcher 1979). According to NatureServe (2003), it is found on washes and flats with hard limestone soils.

**ELEVATION:** 4,840 - 6,600 ft. (1476-2013 m) based on unpublished records in the Heritage Data Management System (AGFD, accessed 2004). In Nevada it ranges from 6,000-6,111 ft (1830-1864 m).

**EXPOSURE:** All. 5-10% slope.

**SUBSTRATE:** Limestone outcrops and limestone derived soils; rocky gravelly loam; rocky clay loam.

**PLANT COMMUNITY:** Found in Great Basin Conifer Woodland (juniper/pinyon Woodland) communities and at the transition zone of sagebrush dominated Great Basin Desertscrub communities. Associated species includes among others: *Aristida* sp. (three-awn grass), *Artemisia tridentata* (big sagebrush), *Astragalus ensiformis* (Pagumpa milk-vetch), *Berberis* sp. (barberry), *Bouteloua gracilis* (blue grama), *Bromus tectorum* (cheat grass), *Ceanothus* sp. (whitethorn), *Chrysothamnus* sp. (Rabbit-brush), *Elymus elymoides* (bottle-brush squirrel-tail), *Eriogonum* sp. (wild-buckwheat), *E. microthecum* (slender buckwheat), *Gutierrezia sarothrae* (broom snakeweed), *Juniperus osteosperma* (Utah juniper), *Mahonia fremontii* (Fremont mahonia), *Nicotiana* sp. (tobacco), *Opuntia* sp., *Penstemon palmeri* (scented beardtongue), *Pinus monophylla* (single-leaf pine), *Purshia* sp. (cliff-rose), *Purshia (Cowaniana) mexicana* (Mexican cliff-rose), *Rhus* sp. (sumac), *Rhus trilobata* (squawbush), *Symphoricarpos* sp. (snowberry), and *Yucca* sp.

**POPULATION TRENDS:** Unknown.

## **SPECIES PROTECTION AND PRESERVATION**

**ENDANGERED SPECIES ACT STATUS:** None (USDI, FWS 1990)  
[3C (USDI, FWS 1985)]  
[3C (USDI, FWS 1980)]  
[PE (USDI, FWS 1976)]  
[PE (USDI, FWS 1975)]

**STATE LIST STATUS:** None

**OTHER STATUS:** None

**MANAGEMENT FACTORS:** This species is known from areas that see overgrazing. In local areas, grazing may definitely have a detrimental effect on this taxon. Adequate management of grazing would provide for an adequate seed reserve for this taxon (Fletcher 1979).

### **PROTECTIVE MEASUREMENTS TAKEN:**

**SUGGESTED PROJECTS:** Periodically monitor known populations, especially in areas that see severe overgrazing.

**LAND MANAGEMENT/OWNERSHIP:** BLM – Arizona Strip Field Office; USFS - Kaibab National Forest; State Land Department. This species is also expected to occur on the Kaibab Paiute Reservation (Bureau of Indian Affairs) and on private lands within its range (Fletcher 1979).

## **SOURCES OF FURTHER INFORMATION**

### **REFERENCES:**

- Albee, B.J. et al. 1988. Atlas of the Vascular Plants of Utah. The Utah Museum of Natural History. Salt Lake City, Utah. Pp. 618.
- Darrow, R.A. Available:  
[http://scisun.nybg.org:8890/searchdb/owa/wwwcatalog.detail\\_list?this\\_id=2981102](http://scisun.nybg.org:8890/searchdb/owa/wwwcatalog.detail_list?this_id=2981102).
- Fletcher, R.A. 1979. *Eriogonum darrovii*. Status Report for U.S. Department of Agriculture, Forest Service.
- Integrated Taxonomic Information System (ITIS). Retrieved 4/28/2004 from ITIS,  
<http://www.itis.usda.gov>.
- Kearney, T.H. 1946. A new *Eriogonum* from Arizona. Leaflets of Western Botany. 4(2): 267-268.

- Kearney, T.H. and R.H. Peebles, and collaborators. 1951. Arizona flora. Second Edition with Supplement by J.T. Howell, E. McClintock and collaborators. 1960. University of California Press. Berkeley, California. Pp. 236.
- Lehr, J.H. 1978. A catalogue of the flora of Arizona. Desert Botanical Garden. Phoenix, Arizona. Pp. 41.
- McDougal, W.B. 1973. Seed Plants of Northern Arizona. The Museum of Northern Arizona. Flagstaff, Arizona. Pp: 133.
- NatureServe. 2003. An online encyclopedia of life [web application]. Version 1.8. Arlington, Virginia, USA: NatureServe. Available: <http://www.natureserve.org/explorer>. (Accessed: April 8, 2004).
- NAZ Flora. Available: <http://www.nazflora.org/Polygonaceae.htm>.
- Nevada Natural Heritage Program. Available: <http://heritage.nv.gov>.
- Reveal, J. 1976. Key to *Eriogonum* in Arizona. Phytologia, 34(5): 410, 416, 420, 478.
- Reveal, J. 2002. *Eriogonum*. Available: <http://www.life.umd.edu/emeritus/reveal/pbio/eriog/oregonium/darrovii.html>.
- SEINet. Herbarium collections from Arizona State University, Northern Arizona University, and the University of Arizona. Accessed 5/27/2004 at <http://seinet.asu.edu/collections/list.jsp>.
- USDA, NRCS. 2004. The PLANTS Database, Version 3.5 (<http://plants.usda.gov>). National Plant Data Center, Baton Rouge, LA 70874-4490 USA.
- USDI, Fish and Wildlife Service. 1975. Threatened or Endangered Fauna or Flora; Review of Status of Vascular Plants and Determination of "Critical Habitat". Federal Register 40(127): 27828.
- USDI, Fish and Wildlife Service. 1976. Endangered and Threatened Species; Plants. Federal Register 41(117): 24559.
- USDI, Fish and Wildlife Service. 1980. Endangered and Threatened Wildlife and Plants; Review of Plant Taxa for Listing as Endangered or Threatened Species; Notice of Review. Federal Register 45(242): 82550.
- USDI, Fish and Wildlife Service. 1985. Endangered and Threatened Wildlife and Plants; Review of Plant Taxa for Listing as Endangered or Threatened Species; Notice of Review. Federal Register 50(188): 00022.
- USDI, Fish and Wildlife Service. 1990. Endangered and Threatened Wildlife and Plants; Review of Plant Taxa for Listing as Endangered or Threatened Species; Notice of Review. Federal Register 55(35): 6184-6229.
- Welsh, S.L. et al. 1993. A Utah Flora. Brigham Young University Press. Provo, Utah. Pp: 542.

**MAJOR KNOWLEDGEABLE INDIVIDUALS:**

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Lee Hughes - BLM, Arizona Strip Field Office, St. George, Utah.

**ADDITIONAL INFORMATION:**

"*Eriogonum darrovii* is not closely related to any other species of *Eriogonum* known to the writer" (Kearney 1946).

**Revised:** 1989-11-09 ( )  
1994-07-14 (DBI)  
1994-07-23 (BGP)  
1998-12-17(DJG)  
2004-04-09 (AMS)  
2004-05-27 (SMS)

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